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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,056	07/25/2001	Masayoshi Kobayashi	P/2291-102	6082

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EXAMINER

PHILLIPS, HASSAN A

ART UNIT PAPER NUMBER

2151

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*Office Action Summary*

Application No.

09/915,056

Applicant(s)

KOBAYASHI, MASAYOSHI

Examiner

Hassan Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7,10,11,28-31,35-42 and 45-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4,6,10,11,28-31,35-42,45,46,48,49 and 62-64 is/are allowed.
- 6) ☒ Claim(s) 7 and 11 is/are rejected.
- 7) ☒ Claim(s) 50-61 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to communications filed on June 28, 2005.

### ***Claim Objections***

2. Claims 50-61 are objected to because of the following informalities: the claims depend on cancelled claims. Appropriate correction is required.

### ***Response to Arguments***

3. Examiner has conducted an updated search finding prior art that reads over Applicant's claimed invention. Accordingly, Applicant's arguments with respect to claims 7 and 11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 11, are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicants Admitted Prior Art (AAPA) in view of Harada et al. (hereinafter Harada)

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U.S. Patent 5,956,339, and further in view of Appanna et al. (hereinafter Appanna), U.S. Patent 6,678,244.

6. In considering claims 7 and 11, the AAPA teaches it is well known in the art for network systems to include at least one cache server comprising: at least one of an automatic cache updating section, a link prefetching control section, and a cache server cooperating section, which carries out respective ones of the automatic cache updating operation, the link prefetching operation, and the cache server cooperating operation, (page 4, lines 12-19).

Although the AAPA shows substantial features of the claimed invention, it fails to show the cache server comprising: a quality-of-service (QoS) path information obtaining section, and a path calculating section.

Nevertheless, in a similar field of endeavor, Harada teaches an apparatus in a packet-switched communications network which comprises: a plurality of path settable routers (SS-1, SS-2, or SS-3) operating a path control protocol to exchange network path information and path load information, relay servers (2, 3, 5, or 6), a QoS path information obtaining section (11) for obtaining QoS path information including network path information and path load information; and, a path calculating section for obtaining a path, (col. 3, lines 40-54).

Given the teachings of Harada, it would have been obvious to one of ordinary skill in the art to modify the teachings of the AAPA in order to show a relay control section for selecting at least one relay server suitable for carrying out at least one of an

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automatic cache updating operation, a link prefetching operation, and a cache server cooperating operation, based on the QoS path information obtained by the QoS path information obtaining section, and for instructing the selected at least one relay server about data to be relayed, wherein the at least one relay server relays the data according to an instruction from a relay control section. This would have allowed for stable packet transmission and effective cache updating, link prefetching, or server cooperating operations by implementing various components in the network system to help select the most efficient routes in the network, Harada, col. 3, lines 23-30.

Although the combined teachings of AAPA and Harada show substantial features of the claimed invention, they fail to expressly show the relay server near to the congestion portion storing data, and when the congestion has been relieved, transferring the data downstream.

Nevertheless, Appanna teaches a congestion management system which discloses: a node for storing data near a congestion portion, and when the congestion has been relieved, transferring the data downstream, (col. 2, lines 40-52).

Thus, given the teachings of Appanna, it would have been obvious to one of ordinary skill in the art to modify the teachings of the AAPA and Harada to show the relay server near to the congestion portion storing data, and when the congestion has been relieved, transferring the data downstream. This would have advantageously prevented a buildup of data in the communication path, and would have provided a means for efficiently transmitting data once the path was clear, Appanna, col. 2, lines 30-36.

***Allowable Subject Matter***

7. In light of Applicants amendments and remarks, claims 1, 3, 4, 6, 10, 11, 28-31, 35-42, 45, 46, 48, 49, 62-64 are allowed. The references in the Applicants IDS and the prior art, cited by the Examiner, failed to explicitly teach all the limitations recited in the claims. Specifically, the prior art of record failed to explicitly teach an apparatus or a method that identifies a maximum remaining bandwidth path, identifies a link on the maximum remaining bandwidth path having a minimum remaining bandwidth, and determines whether the minimum remaining bandwidth is not smaller than a predetermined value. Furthermore, modifying the prior art to teach all of the limitations recited in the claims would not have been obvious to a person of ordinary skill in the art at the time of the present invention.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/  
10/3/05

  
**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**